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09/785,222	02/20/2001	Lee Codel Lawson Tarbotton	00.163.01	3948

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EXAMINER

CHAI, LONGBIT

ART UNIT	PAPER NUMBER
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2131

DATE MAILED: 05/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/785,222	Applicant(s) TARBOTTON ET AL.	
	Examiner Longbit Chai	Art Unit 2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2006.
 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 7, 8, 10-23, 25, 26, 28-41, 43, 44, 46-54 and 58-61 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) ☐ Claim(s) _____ is/are allowed.
 6) ☒ Claim(s) 11-5, 7, 8, 10-23, 25, 26, 28-41, 43, 44, 46-54 and 58-61 is/are rejected.
 7) ☐ Claim(s) _____ is/are objected to.
 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
 10) ☒ The drawing(s) filed on 03 May 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Original application contained claims 1 – 57. Claims 6, 9, 24, 27, 42, 45 and 55 – 57 have been canceled; Claims 1, 19, 37 and 54 have been amended; and new claims 58 – 61 have been added in an amendment filed on 4/11/2006. The amendment filed have been entered and made of record. Presently, pending claims are 1 – 5, 7, 8, 10 – 23, 25, 26, 28 – 41, 43, 44, 46 – 54 and 58 – 61.

Response to Arguments

2. Applicant's arguments with respect to instant claims have been fully considered but are moot in view of the new ground(s) of rejection.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter because no corresponding supports associated with the claimed subject matter that has been amended can be found from the disclosure of the specification and as such Examiner notes specific evidences are respectfully requested based upon the disclosure from the specification. The amended claim limitation recites "received from said computer virus scan logic for simultaneously performing additional operations in parallel with said computer virus scan, said additional operations including identifying a request to execute a computer program associated with said computer file to be scanned for computer viruses by said computer virus scanner logic". See 37 CFR 1.75(d)(1) and MPEP § 608.01(o).

As Examiner understands, the specification only discloses the audit data generator effectively rides on the back of the anti-virus computer program in a manner that is able to provide comprehensive, secure and accurate audit data whilst consuming relatively little additional processing overhead and without requiring the installation and support of a stand alone audit system (Page 2 Line 22 – 26).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 19 and 37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The amended claim limitation recites "received from said computer virus scan logic for simultaneously performing additional operations in parallel with said computer virus scan, said additional operations including identifying a request to execute a computer program associated with said computer file to be scanned for computer viruses by said computer virus scanner logic". However, as Examiner understands, the specification only discloses the audit data generator effectively rides on the back of the anti-virus computer program in a manner that is able to provide comprehensive, secure and accurate audit data whilst consuming relatively

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little additional processing overhead and without requiring the installation and support of a stand alone audit system (Page 2 Line 22 – 26).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

5. Claim 1 is rejected under 35 U.S.C. 101 because the claimed subject matter is merely drawn to computer programs claimed as computer listings per se (as a computer program product or a software product), i.e., the descriptions or expressions of the programs, are not physical "things," nor are they statutory processes, as they are not "acts" being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed aspects of the invention which permit the computer program's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a computer program defines structural and functional interrelationships between the computer program and the medium which permit the computer program's functionality to be realized, and is thus statutory. **Warmerdam**, 33 F.3d at 1361, 31 USPQ2d at 1760. **In re Sarkar**, 588 F.2d 1330, 1333, 200 USPQ 132, 137 (CCPA 1978). See MPEP § 2106 (IV.B).1(a). It is non-statutory as not being technologically embodied and therefore the claim is directed to non-statutory subject matter as not being tangible.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A person shall be entitled to a patent unless –

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 7, 8, 10 – 12, 15, 19, 25, 26, 28 – 30, 33, 37, 43, 44, 46 – 48, 51 and 58 – 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chi (U.S. Patent 6006329), in view of Farber et al. (U.S. Patent 6415280), and in view of Greschler (U.S. Patent 2002/0078203).

As per claim 1, 19, and 37, Chi teaches a computer program product comprising a computer program operable to control a computer to generate audit data indicative of a request to execute a computer program, said computer program comprising:

(i) computer virus scanner logic, responsive to a computer virus scan request including data identifying a computer file to be scanned for computer viruses (Chi: see for example, Column 3 Line 17 – 23), for performing a computer virus scan (Chi: see for example, Column 3 Line 21 – 23) and for generating a scan result (Chi: see for example, Figure 4, Figure 3a Element 305, Column 7 Line 43 – 45); and

(ii) audit data generator logic separated from said computer virus scanner logic and being triggered by said computer virus scanner logic prior to said generating said

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scan result, and responsive to said data identifying said computer file to be scanned that is received from said computer virus scan logic for simultaneously performing additional operations in parallel with said computer virus scan, said additional operations including identifying a request to execute a computer program associated with said computer file to be scanned for computer viruses by said computer virus scanner logic (Chi: see for example, Column 3 Line 17 – 23). However, Chi does not disclose expressly generating audit data identifying said computer program.

Farber teaches generating audit data identifying said computer program (Farber: Column 12 Line 38 – 43, Column 5 Line 56 – 60 and Column 34 Line 45 – 62: Farber teaches for virus check of security purpose a True Name that is the message digest (MD) (e.g. checksum) from the contents is calculated as such MD is highly characteristic of a particular data block / file / content even if their filename is changed to ensure the content is indeed the correct data item).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Farber within the system of Chi because (a) Chi teaches a method of computer virus detection (Chi: see for example, Column 1 Line 6 – 7) and (b) Farber teaches an improved virus check of security method by validating the file integrity (Farber: see for example, Column 3 Line 38 – 42 and Column 6 Line 37 – 40).

Chi as modified does not teach concurrent usage logic.

Greschler teaches:

(iii) concurrent usage logic operable to perform a concurrent usage check to identify a request to execute a computer program that would result in said computer program concurrently executing upon more than a predetermined number of computers upon a computer network (Greschler: Para [0042] Line 8 – 10); wherein said predetermined number varies with time (Greschler: Para [0041] Line 15 – 21: Greschler teaches concurrent usage record is also used by load balancing process in order to balance the processing resources based on not only the maximum limit of the concurrent usages but also the application media weight so that certain resource intensive applications may be restricted during system heavy load. Therefore, the predetermined number of concurrent sessions does vary with time depending upon the system load).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Greschler within the system of Chi as modified because (a) Chi teaches a method of computer virus detection (Chi: see for example, Column 1 Line 6 –7) and (b) Greschler teaches an enhancing security mechanism by using computer license manager software to detect the concurrent usage violation to maintain load balancing as well as to prevent unauthorized access (Greschler: see for example, Para [0042] Line 6 – 9 and Para [0042] last sentence).

As per claim 15, 33 and 51, Chi teaches computer virus scan request results from an on-access scan (Chi: see for example, Column 3 Line 13 – 15).

As per claim 11, 29 and 47, Chi as modified teaches audit data generator logic calculating a checksum value from said computer file, said checksum value being used in identification of said computer file as a particular computer program (Farber: Column 12 Line 38 – 43 and Column 34 Line 45 – 62).

As per claim 12, 30 and 48, Chi as modified teaches audit data generator logic stores said calculated checksum value and uses said stored calculated checksum values instead of recalculating said checksum value when said computer file subject to a subsequent access without any intervening change having been made to said computer file (Farber: Column 12 Line 38 – 43 and Column 34 Line 45 – 62).

As per claim 7, 25 and 43, Chi as modified teaches concurrent usage check indicates that said request to execute said further computer program would result in more than said predetermined number of computers upon said computer network concurrently executing said computer program, then said request to execute said further computer program is denied (Greschler: Para [0042] Line 8 – 10).

As per claim 8, 26 and 44, Chi as modified teaches a user message is displayed when execution of said further computer program is prevented (Greschler: Para [0053]).

As per claim 10, 28 and 46, Chi as modified teaches at certain times said predetermined number is zero (Greschler: Para [0041] Line 15 – 21: Greschler teaches

concurrent usage record is also used by load balancing process in order to balance the processing resources based on not only the maximum limit of the concurrent usages but also the application media weight so that certain resource intensive applications may be restricted during system heavy load. Therefore, the predetermined number of concurrent sessions could be zero when the system is already overloaded).

As per claim 58 and 59, Chi as modified teaches said computer virus scanner logic generates said scan result after receiving a reply from said audit data generator logic (Chi: Column 7 Line 39 – 50 & Farber: Column 34 Line 45 – 62).

As per claim 60, Chi as modified teaches a reply from said audit data generator logic is not used by said computer virus scanner logic if said scan result includes a failure (Chi: Column 8 Line 43 – 48: a FALSE result is interpreted as equivalent to a failure).

As per claim 61, Chi as modified teaches said data identifying said computer file is sent to said audit data generator logic prior to performing said computer virus scan (Farber: Column 34 Line 45 – 49).

7. Claims 2 – 5, 20 – 23 and 38 – 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chi (U.S. Patent 6006329), in view of Farber et al. (U.S. Patent

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6415280), in view of Greschler (U.S. Patent 2002/0078203), and in view of Chambers (U.S. Patent 5398196).

As per claim 2, 20 and 38, Chi as modified does not teach a file access request to an operating system triggers generation of said computer virus scan request.

Chambers teaches a file access request to an operating system triggers generation of said computer virus scan request (Chambers: see for example, Column 1 Line 68 – Column 2 Line 10 and Column 6 Line 41 – 50).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Chambers within the system of Chi as modified because Chi teaches a method of computer virus detection (Chi: see for example, Column 1 Line 6 – 7) and Chambers teaches an improved antivirus program by scanning for viral behavior when a program attempts to make an operating system call (Chambers: see for example, Column 3 Line 38 – 42 and Column 6 Line 37 – 40).

As per claim 3, 21 and 39, Chi as modified does not teach audit data generator logic is responsive to data identifying one or more banned computer programs to identify a request to execute a banned computer program.

Chambers teaches audit data generator logic is responsive to data identifying one or more banned computer programs to identify a request to execute a banned computer program (Chambers: see for example, Column 1 Line 68 – Column 2 Line 10 and Column 6 Line 41 – 50: a banned program is interpreted as that not within a permitted program list). Same rationale applies here as above in rejecting the claim 2.

As per claim 4, 22 and 40, Chi as modified teaches if a request to execute a banned computer program is identified, then one or more banned program actions are triggered, said banned program actions including one or more of: (i) said banned computer program is deleted; (ii) said banned computer program is disabled; (iii) said banned program is encrypted and replaced by a stub program; and (iv) an alert indicating detection of said banned computer program is issued (Chambers: see for example, Column 2 Line 5 – 7).

As per claim 5, 23 and 41, Chi as modified teaches data identifying one or more banned computer programs is a permitted computer program list with any computer program not included within said permitted computer program list being a banned computer program (Chambers: see for example, Column 6 Line 37 – 42 and Column 2 Line 3 – 4).

8. Claims 13 – 14, 17 – 18, 31 – 32, 35 – 36, 49 – 50 and 53 – 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chi (U.S. Patent 6006329), in view of Farber et al. (U.S. Patent 6415280), in view of Greschler (U.S. Patent 2002/0078203), and in view of Hypponen (U.S. Patent 6577920).

As per claim 13, 31 and 49, Chi as modified does not teach audit data generator logic is responsive to a non-user specified database of data indicative of particular computer programs.

Hypponen teaches audit data generator logic is responsive to a non-user specified database of data indicative of particular computer programs (Hypponen: see for example, Column 1 Line 47 – 53, Column 1 Line 66 – 67 and Column 3 Line 26 – 31).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Hypponen within the system of Chi as modified because Chi teaches a method of computer virus detection (Chi: see for example, Column 1 Line 6 – 7) and Hypponen teaches providing the screening of computer data for virus and more particularly to the screening of computer data for macro viruses (Hypponen: see for example, Column 1 Line 5 – 6).

As per claim 14, 32 and 50, Chi as modified does not teach audit data generator logic is responsive to a user specified database of data indicative of particular computer programs.

Hypponen teaches audit data generator logic is responsive to a user specified database of data indicative of particular computer programs (Hypponen: see for example, Column 3 Line 3 – 10). Same rationale applies here as above in rejecting the claim 11.

As per claim 17, 35 and 53, Chi as modified does not teach local audit data is stored upon a computer within a computer network until said computer is polled by a

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remote computer upon said computer network whereupon said local audit data is sent to said remote computer.

Hypponen teaches local audit data is stored upon a computer within a computer network until said computer is polled by a remote computer upon said computer network whereupon said local audit data is sent to said remote computer (Hypponen: see for example, Column 5 Line 62 – 65: Official Notice is taken that the use of a polling technique is one of the well-known methods in the field. Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to be polled by a remote computer upon said computer network whereupon said local audit data is sent to said remote computer). ~~Same rationale applies here as above in~~ OK
~~rejecting the claim.~~

As per claim 18, 36 and 54, Chi as modified teaches remote computer generates a consolidated audit report for a plurality of computers upon said computer network (Hypponen: see for example, Column 5 Line 62 – 65).

9. Claims 17, 18, 35, 36, 53 and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chi (U.S. Patent 6006329), in view of Farber et al. (U.S. Patent 6415280), in view of Greschler (U.S. Patent 2002/0078203), and in view of Schlossberg et al. (U.S. Patent 2002/0066034).

As per claim 17, 35 and 53, Chi as modified does not teach local audit data is stored upon a computer within a computer network until said computer is polled by a remote computer upon said computer network whereupon said local audit data is sent to said remote computer.

Schlossberg teaches local audit data is stored upon a computer within a computer network until said computer is polled by a remote computer upon said computer network whereupon said local audit data is sent to said remote computer (Schlossberg: see for example, Para [0009] and [0061]).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Schlossberg within the system of Chi as modified because Chi teaches a method of computer virus detection (Chi: see for example, Column 1 Line 6 –7) and Schlossberg teaches providing an effective network reporting mechanism for protecting a computer-network against network intruders (Schlossberg: see for example, Para [0002], Para [0009] and [0061]).

As per claim 18, 36 and 54, Chi as modified teaches remote computer generates a consolidated audit report for a plurality of computers upon said computer network (Schlossberg: see for example, Figure 7 Element 709).

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10. Claims 16, 34 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chi (U.S. Patent 6006329), in view of Farber et al. (U.S. Patent 6415280), in view of Greschler (U.S. Patent 2002/0078203), and in view of Bates (U.S. Patent 6721721).

As per claim 16, 34 and 52, Chi teaches the claimed invention as described above (see claim 1, 19 and 37 respectively). Chi does not disclose expressly computer virus scan request results from an on-demand scan.

Bates teaches computer virus scan request results from an on-demand scan (Bates: see for example, Column 24 Line 30 – 33 and Column 17 Line 41 – 46).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine the teaching of Bates within the system of Chi because Chi teaches a method of computer virus detection (Chi: see for example, Column 1 Line 6 – 7) and Bates teaches, more specifically, on virus checking and scanning on a particular file requested by the user (Bates: see for example, Column 1 Line 7 – 8 and Column 17 Line 41 – 46).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Longbit Chai whose telephone number is 571-272-3788. The examiner can normally be reached on Monday-Friday 8:00am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


LBC

Longbit Chai
Examiner
Art Unit 2131

CHRISTOPHER REVAH
PRIMARY EXAMINER

 5/4/06